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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/603,689

06/26/2003

Hidetoshi Ohnuma

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07/25/2006

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EXAMINER

CHACKO DAVIS, DABORAH

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary

Application No.

10/603,689

Applicant(s)

OHNUMA, HIDETOSHI

Examiner

Daborah Chacko-Davis

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/12/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed May 12, 2006, fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein i.e., International Search Report mailed February 1, 2005, has not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7, 15-20, are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent Application Publication No. 2003/0138742 (Irie et al., herein after referred to as Irie).

Irie, in the abstract, in [0013], [0015], [0022], [0041], [0095], [0132], [0134],

[0135], [0136], [0137], [0145], [0146], [0162], [0163], [0175], [0201], [0202], [0203], [0204], and in figures 2B, 4, and 6, discloses a method of projecting a desired pattern (photolithography) on a device substrate (object to be exposed) using a reflective mask (reticle for use in the EUV exposure region) comprising providing reticles (master reticles R1....RN) each having pattern elements (mark elements) with mark elements aligned in the X-direction (125X, mark elements horizontal to the projection vector), and mark elements aligned in the Y-direction (125Y, mark elements perpendicular to the projection vector), wherein the reticle is rotated by rotational means (main control system) so as to align the corresponding mark elements (either mark element in the X-direction or mark element in the Y-direction) in the Z-direction (projection vector, best focus position), and performing sequential exposures (X-direction elements rotated about 90 degree to align in the projection beam, and Y-direction elements rotated about 90 degree to align with the projection beam, performing plural exposures) through the respective reticles, while adjusting the tilt angles by rotating the substrate and the reticles (125X, and 125Y) through the main control system thereby canceling any errors (due to angle deviations) and forming the desired pattern on the substrate (reference 4) (claims 1-2, 6-7, 15-16, and 20). Irie, in [0200], [0204], discloses that the exposure light is either a EUV ray or an X-ray (claims 3, and 17). Irie, in [0133], discloses that the patterns can be formed on the substrate using an electron beam system (electron beam exposure performed) (claims 3, and 18). Irie, in [0029], [0109], [0119], and [0134], and in figures 2B, and 4, discloses that the reticle pattern that includes the mark elements formed in the Y-direction (125Y, V-line mask) relative to the projection vector (best

focus position) corresponds to the scanning direction (operating direction) of the optical system (exposure system) (claims 5, and 19).

Response to Arguments

4. Applicant's arguments filed May 12, 2006, have been fully considered but they are not persuasive. The 102 rejection made over claims 1-7, and 15-20, in the previous office action (paper no. 0207) has been maintained.

A) Applicants argue that Irie '733 disclosure only encompasses paragraphs [0001] to [0165], and claims 1 to 35, and that there is no disclosure apparently to the cited paragraphs [0175], [0201], [0202], [0203], and [0204] of the Irie CIP Publication, therefore the statements of the anticipation rejection as presented cannot be applicable to the Irie CIP Publication.

The cited portion [0175] of the Irie CIP publication that is relied upon is literally the same as paragraph no. [0129] of the Irie '733 publication that discusses the yawing error and the canceling of any errors due to angled deviations. The cited portions relied upon in the office action viz., [0200], [0201], [0202], [0203], and [0204], are exactly the same as paragraph nos. [0154], [0155], [0156], [0157], and [0158] of the Irie '733 publication that discusses performing exposures using either an excimer laser or X-ray, or EUV light. Therefore, cited portions in question are taught in the Irie '733 publication and the statements of the anticipation rejection as presented in paragraph no. 3 of the present action and in the previous office action (paper no. 0207) are applicable to the Irie CIP Publication.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daborah Chacko-Davis whose telephone number is (571) 272-1380. The examiner can normally be reached on M-F 9:30 - 6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dcd

July 20, 2006.



JOHN A. MCPHERSON
PRIMARY EXAMINER